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CASIO

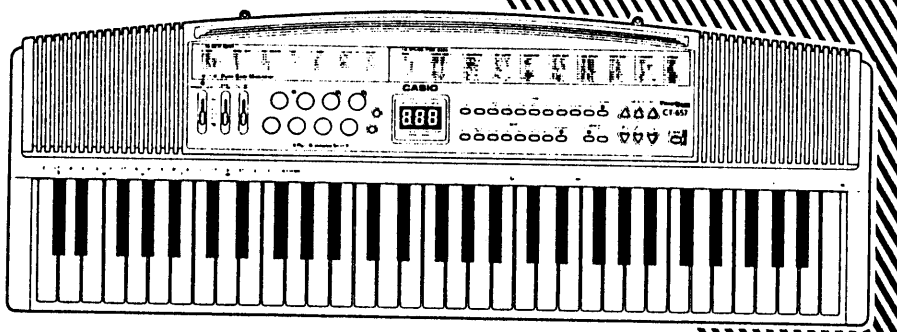
TONE BANK KEYBOARDS

CT-657

ELECTRONIC MUSICAL INSTRUMENT
INSTRUMENTO MUSICAL ELECTRONICO

OPERATION MANUAL 2

MANUAL DE OPERACION 30



(英) (西)

TONE BANK KEYBOARDS CT-657

ELECTRONIC MUSICAL INSTRUMENT

Introduction

Your new CT-657 keyboard is a state-of-the-art musical instrument which incorporates the latest electronics technology to make its operation as easy as possible. Exceptional sound quality backed up by a host of sophisticated features and functions makes this keyboard a joy to play for everyone.

In order to enjoy the features and functions of this unit to their fullest, be sure to carefully read this manual and follow the instructions contained herein.

Precaution

The batteries that come with the unit are test batteries. If battery power drops below a certain level, the quality of the tone produced deteriorates, a totally different tone may sound, or the demo tune or auto rhythm may become abnormal. Should any of these symptoms occur, replace batteries as soon as possible.

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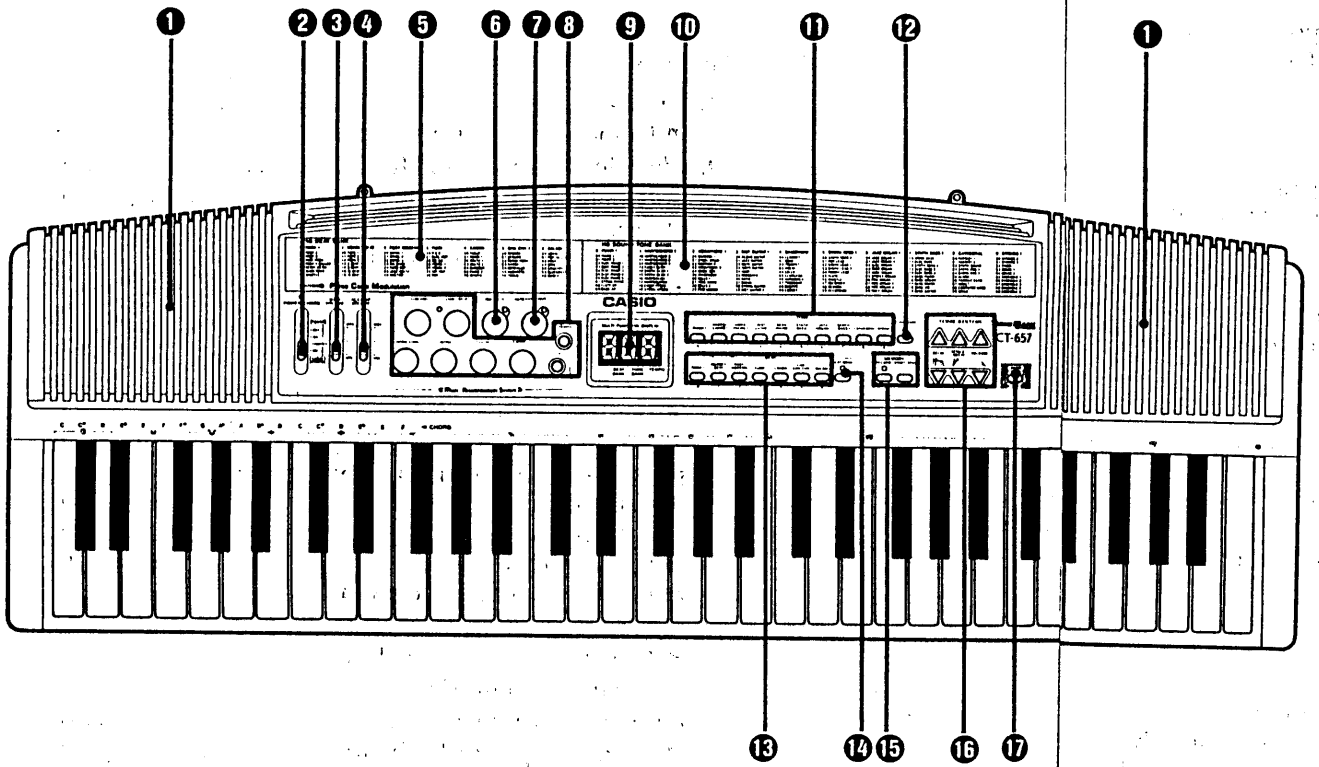
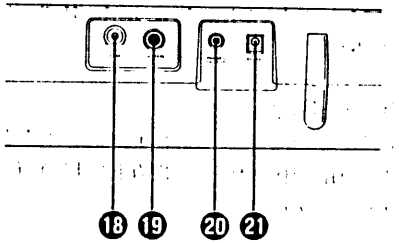
1 General Guide



❶ Built-in speakers
❷ POWER/CHORD selector
❸ MAIN VOLUME slider
❹ ACCOMP VOLUME slider
❺ 56 BEAT BANK list
❻ OBBLIGATO button
❼ AUTO HARMONIZE button
❽ MUSICAL CONTROLLER buttons
❾ 3-digit display
❿ 110 TONE BANK list
⓫ TONE selectors
⓬ TONE BANK button
⓭ BEAT selectors
⓮ BEAT BANK button
⓯ MEMORY buttons
⓰ TONE EDITOR buttons
⓱ DEMO button

<Rear panel>



⓲ Tuning control
⓳ Sustain jack
⓴ Headphones jack
㉑ AC adaptor jack

Demonstration Tune

This unit features a preset demonstration tune which has been carefully programmed to showcase all the features and benefits of this unit. Simply press the DEMO button ⓱, and listen to the CT-657 play.

- *The demonstration tune is played in an endless loop. Press the DEMO button again to stop the tune.*
- *The keyboard is inoperable while playing the demonstration tune.*

2 Choosing a Power Supply

You can power your keyboard with 6 D batteries, standard AC power (with an optional AC adaptor) or by plugging in to the cigarette lighter of a car (with an optional car adaptor).

■ Installing the batteries

This unit can be powered by 6 D size (SUM-1/R20P) manganese dry cell batteries. Make sure that the POWER/CHORD selector is set to OFF position when installing batteries.

① Open the battery compartment cover on the bottom of the unit.
② Load new batteries taking care that the plus (+) and minus (−) poles are facing in the correct directions.

- *Standard battery life is approximately 6 hours.*

PRECAUTIONS

Incorrectly using batteries can cause them to leak or burst, and may damage your product. Note the following precautions:

- Be sure that the plus (+) and minus (−) poles are facing in the correct directions.
- Do not mix battery types.
- Do not mix new batteries with old ones.
- Never leave dead batteries in the battery compartment.
- Remove batteries when not using the product for extended periods.
- Never try to recharge the batteries that are specified for the power supply of this unit.
- Do not expose batteries to direct heat, let them become shorted or try to take them apart.

(If a battery leaks, clean out the battery compartment of the product immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.)

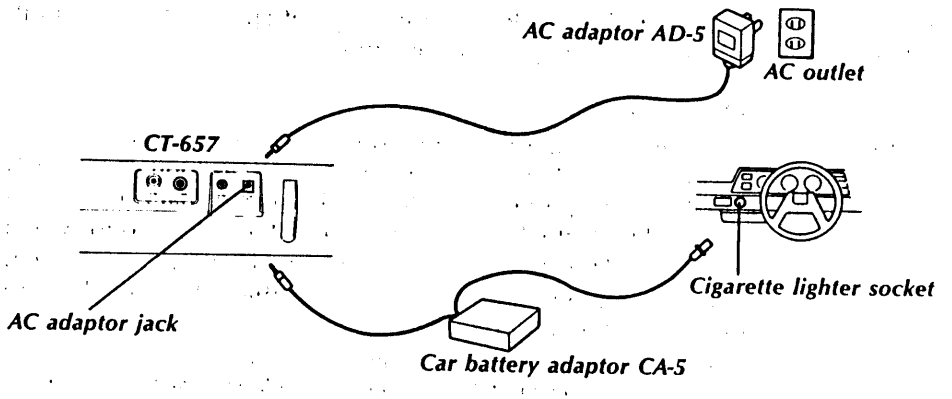
■ Using AC Power

An AC adaptor (AD-5, optional) is required when using household current. Use only a genuine CASIO adaptor with the same voltage rating (100, 117, 220 or 240) as the power supply in your area to prevent damage to internal components. Plug the AC adaptor into the AC outlet and the cord into the unit. This will automatically cut off the battery power supply.

■ Using a car's cigarette lighter

With the car battery adaptor (CA-5, optional), DC power is supplied from a car battery through the cigarette lighter socket.

- *Car battery adaptor may not be available in some areas.*



IMPORTANT

- The adaptor may become warm when it is being used. This is normal and does not indicate any problem.
- Be sure to unplug the adaptor from the power source when you are not using the unit.
- Whenever connecting or disconnecting the adaptor, be sure that the power of the unit is switched off.
- Be sure to unplug the car adaptor from the cigarette lighter socket when you are not using the unit. Leaving the car adaptor plugged in can cause damage or can run down your car's battery.
- Never connect the car adaptor to a 24V DC cigarette lighter (in a bus or truck). Doing so can damage the unit.
- Certain makers of cars may have non-standard cigarette lighter shapes or sizes. Be sure to check the size of your car's cigarette lighter before using the car adaptor.
- Never use a power supply that does not match that specified for the unit. Doing so can damage the adaptor or your unit.

■ Memory Back-Up Power

The Performance Memory (page 23) is electronic memory, which means that it retains its contents even when you switch power off, as long as power is supplied through the AC adaptor or by batteries. This means that Performance Memory contents will be lost when there are no batteries loaded (or when the batteries go dead) and the AC adaptor is not plugged in (or power through the AC adaptor is interrupted for any reason). Note the following advice to keep your Performance Memory data safe.

- *Make sure that the batteries loaded in the keyboard never go dead.*
- *When replacing batteries, be sure to connect the AC adaptor to supply power first. See the section of this manual titled: "Installing the batteries" for full details.*

■ Auto power off function

Power is automatically cut off approximately 6 minutes after the last operation of the unit. Power supply can be restored by switching power OFF and then ON again.

3 General Operations

- *Refer to the general guide found on page 4-5 for exact locations of this keyboard controls and connections.*

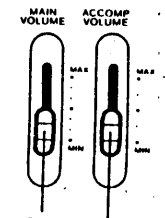
■ Getting started

① Set the POWER/CHORD selector to ON.
② Adjust the volume level using the MAIN VOLUME slider.
③ Select one of the 110 preset tones (see "Preset Tones", page 10).
④ Now, start playing.

■ VOLUME sliders

MAIN VOLUME slider:
Adjusts the overall volume of the unit.

ACCOMP VOLUME slider:
Adjusts the volume of the rhythm and the accompaniment pattern.



MAIN VOLUME slider

ACCOMP VOLUME slider

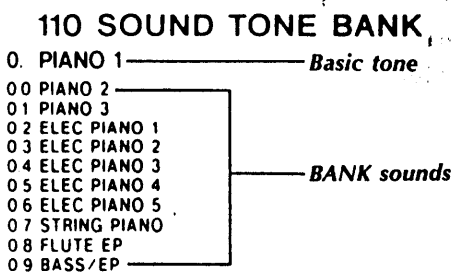
■ Tuning control

You can adjust the pitch of the entire keyboard within ±30 cents using the tuning control on the rear panel. This allows easy tuning with other instruments.

4 Preset Tones (110-SOUND TONE BANK)

- *Refer to the general guide found on page 4-5 for exact locations of this keyboard controls and connections.*

This unit features a total of 110 preset tones including 10 ***basic tones*** and 100 ***BANK sounds.***
Look at the 110 SOUND TONE BANK list on the front panel. As you'll notice, the preset tones are divided into 10 groups such as PIANO group, HARPSICHORD group, etc. The basic tones are the representative ones, which appear at the top of the list of each group. You can select the basic tones directly using a TONE selectors. The BANK sounds are variations of each group, which can be selected using the TONE selectors after pressing the TONE BANK button.



■ Selecting a basic tone (tone 0→9)

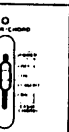
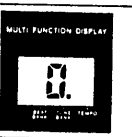
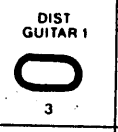
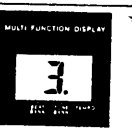
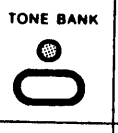
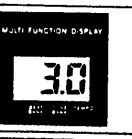
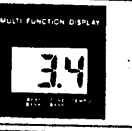
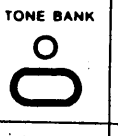
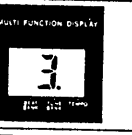
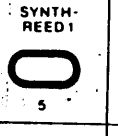
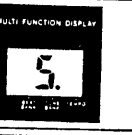
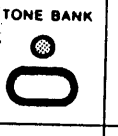
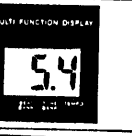
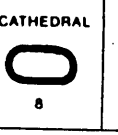
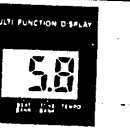
Note that you do not press the TONE BANK button (the indicator above this button is not lit) when selecting a basic tone.
Press one of the TONE selectors to choose a preset tone.

- *PIANO 1 (tone 0) is automatically selected when the power of the unit is switched ON.*

■ Selecting a BANK sound

Look at the 110 SOUND TONE BANK list again. The tones which have 2-digit numbers are BANK sounds. To select a BANK sound, first select the basic tone of the group that contains the BANK sound you want, and then press the TONE BANK button (the indicator above this button lights). Now, you can select the BANK sounds of the group you've selected by pressing a TONE selector.

<Example>
To select OCARINA (tone number 5.8) after selecting HARP (tone number 3.4)

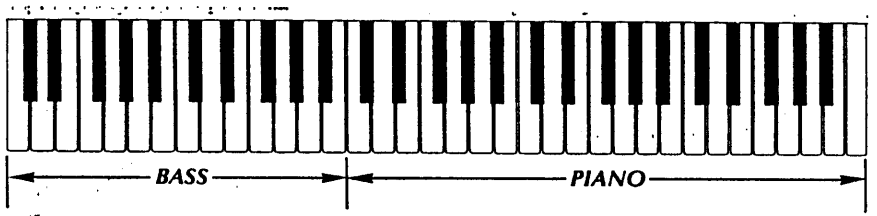
①Set the POWER/CHORD selector to ON. PIANO 1 tone (tone 0) is automatically selected.		
②Press TONE selector 3.		
③Press the TONE BANK button. The indicator above this button lights.		
④Press the TONE selector 4. HARP is selected now.		
⑤Next, select OCARINA. Press the TONE BANK button.		
⑥Press the TONE selector 5.		
⑦Press the TONE BANK button again.		
⑧Press TONE selector 8. Now OCARINA is selected.		

■ Keyboard split tones

Some of the preset tones split the keyboard and assign two or more sounds. With such a preset tone, the sound produced depends on what position of the keyboard you play. For example, BASS/PIANO (tone 7.5) puts BASS on the left and PIANO on the right of the keyboard.

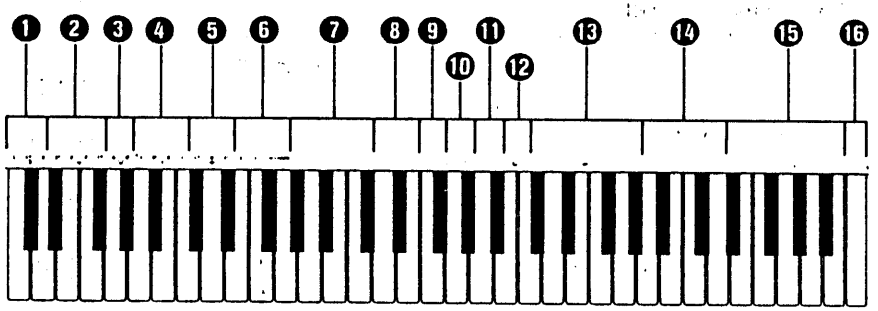
<Example>

BASS/PIANO (No. 7.5)



PERCUSSION (No. 2.9)

- *PERCUSSION (tone 2.9) assigns 16 percussion sounds to the keyboard as illustrated below. The sounds assigned to each key are indicated above the keyboard.*

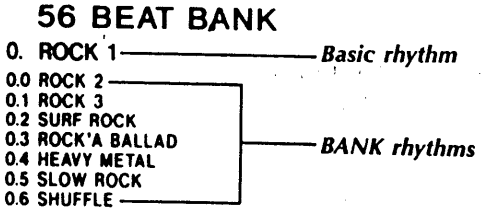


1. bass drum
2. snare drum
3. gated snare drum
4. closed hi-hat
5. open hi-hat
6. crash cymbal
7. ride symbal
8. hi tom
9. mid tom
10. low tom
11. floor tom
12. cow bell
13. timbales
14. maracas
15. claves
16. rim shot

5 Auto-rhythms (56 BEAT BANK)

- *Refer to the general guide found on page 4–5 for exact locations of this keyboard controls and connections.*

This unit features a total of 56 rhythm patterns including 7 ***basic rhythms*** and 49 ***BANK rhythms.***
Look at the 56 BEAT BANK list on the front panel. As with preset tones, the rhythm patterns are divided into groups. The basic rhythms at the top of the list for each group are the representative ones. You can directly select the basic rhythms using the BEAT selectors. The BANK rhythms are variations of each group, which can be selected using the BEAT selectors after pressing the BEAT BANK button.



■ Selecting a basic rhythm (rhythm number 0→6)

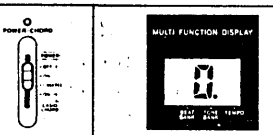
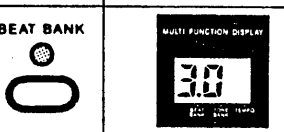
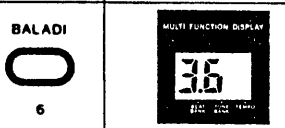
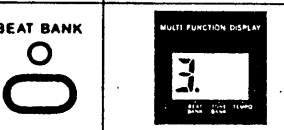
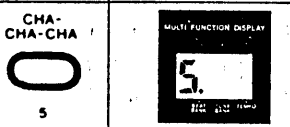
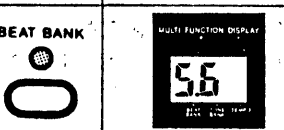
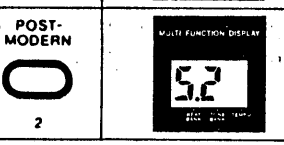
Note that you do not press the BEAT BANK button (the indicator above this button is not lit) when selecting a basic rhythm.
Simply press one of the BEAT selectors.

- *ROCK 1 rhythm (rhythm 0) is automatically selected when the power of the unit is switched ON.*

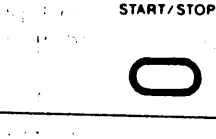
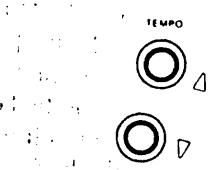
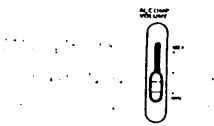
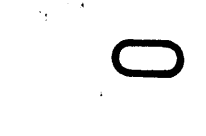
■ Selecting a BANK rhythm

Look at the 56 BEAT BANK list again. The rhythms which have 2-digit numbers are BANK rhythms. To select a BANK rhythm, first select the basic rhythm of the group that contains the BANK rhythm you want, and then press the BEAT BANK button (the indicator above this button lights). Now, you can select the BANK rhythms in the group you've selected by pressing a BEAT selector.

<Example>
To select BOSSA NOVA (rhythm 5.2) after selecting RAP (rhythm 3.6)

① Set the POWER/CHORD selector to ON. ROCK 1 (rhythm 0) is automatically selected.	
② Press BEAT selector 3.	
③ Press the BEAT BANK button. The indicator above this button lights.	
④ Press BEAT selector 6. RAP is selected now.	
⑤ Next, select BOSSA NOVA. Press the BEAT BANK button.	
⑥ Press BEAT selector 5.	
⑦ Press the BEAT BANK button again.	
⑧ Press BEAT selector 2. Now BOSSA NOVA is selected.	

■ Playing an auto-rhythm

① After selecting an auto-rhythm, press the START/STOP button to start the rhythm.	
② Adjust the tempo using the TEMPO control buttons. Each press of [△] speeds up the tempo, while pressing [▽] slows it down. The 3-digit display shows the tempo of the rhythm. • *The tempo of the auto-rhythm can be adjusted between 40 and 256 beats per minute.*	
③ You can adjust the volume of the rhythm by using the ACCOMP VOLUME slider.	
④ Press the START/STOP button again to stop auto-rhythm play. • *You can use the MUSICAL CONTROLLER buttons to start an auto-rhythm with intro pattern, inserting fill-ins to the rhythm, etc. Please refer to page 20, "Using MUSICAL CONTROLLER buttons" for details.*	

6 Auto-accompaniment

• *Refer to the general guide found on page 4-5 for exact locations of this keyboard controls and connections.*

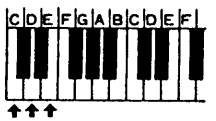
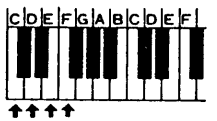
This unit features 56 accompaniment patterns that let you add full accompaniments to your performances automatically.
You can select from two types of auto-accompaniment—simplified fingering chord play (CASIO CHORD ON) or standard fingering (FINGERED).

■ Accompaniment keyboard

When you set the POWER/CHORD selector to FINGERED or CASIO CHORD ON, the keys of the lower 1.5 octave of the keyboard are the accompaniment keys and the rest of the keyboard is the melody section.

■ Playing an accompaniment using CASIO CHORD

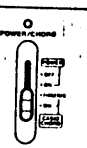
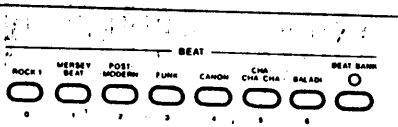
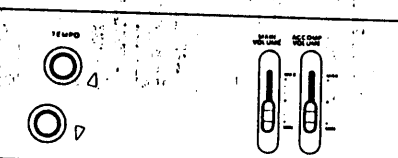
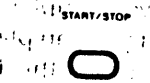
The Casio Chord system lets you easily play the four main types of chords. Playing of the chords is simplified as shown in the chart below.

Keys	Chord Type	Example
Pressing **one** accompaniment key	Major chord	**C** (C Major Chord)
Pressing **two** accompaniment keys	Minor chord	**Cm** (C Minor Chord)
Pressing **three** accompaniment keys	Seventh chord	**C7** (C Seventh Chord) 
Pressing **four** accompaniment keys	Minor seventh chord	**Cm7** (C Minor Seventh Chord) 

Note

The bottom note that you play determines the name of the chord. For example, if the bottom note is C, the keyboard plays a C chord.

Follow these steps to play the Casio Chord auto-accompaniment.

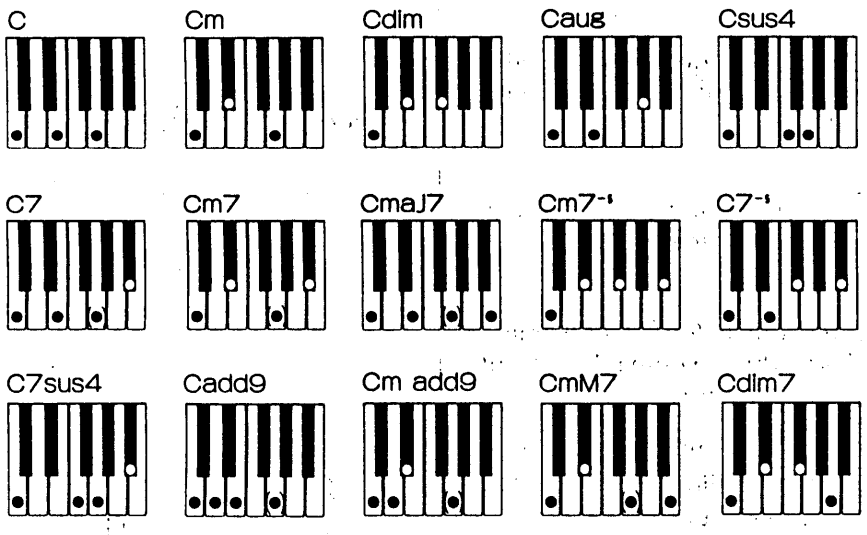
1. Set the POWER/CHORD selector to the CASIO CHORD ON position.	
2. Select one of the auto-rhythms. (refer to "Auto-rhythms" on page 13)	
3. Start the auto-rhythm by pressing the START/STOP button.	
4. Press one to four accompaniment keys. The accompaniment automatically plays.	
5. Adjust TEMPO [△/▽], MAIN VOLUME slider, and ACCOMP VOLUME slider.	
6. Press the START/STOP button to stop the auto-accompaniment.	

Note

You can also use introductions, fill-ins and ending patterns in your accompaniment performance. See "Using the MUSICAL CONTROLLER buttons" on page 20.

■ Playing an accompaniment using standard fingering

The standard fingering (FINGERED) mode lets you play a wider variety of chords. You can start an accompaniment pattern by pressing down either three or four of the proper accompaniment keys.
This unit is capable of recognizing 15 different chords. The following shows the fingerings of the recognized chords with a root of C. Note that the fingerings within parentheses can be omitted without changing the sound of the chord produced.

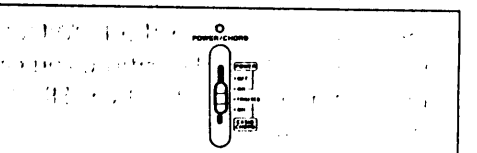
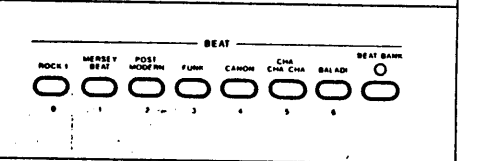
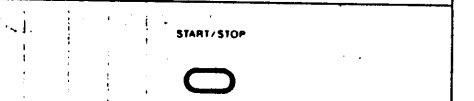
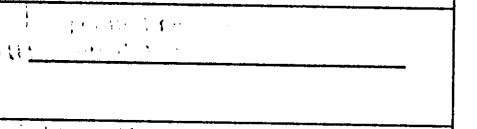
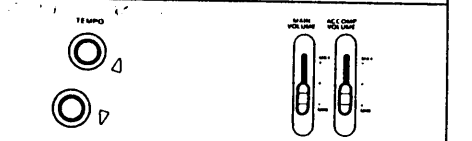
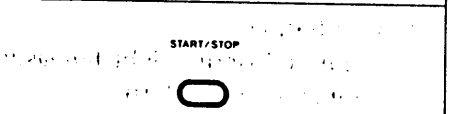


Notes

Each of the above examples shows only one of the possible fingerings for each chord. Note that you can play a chord by pressing its notes in any combination. For example, each of the following fingerings produce the same C chord.

- *See the "List of fingered chord" on page 56-58 for infomation on the fingering of chords with all the roots.*

Follow these steps to play the standard fingering auto-accompaniment.

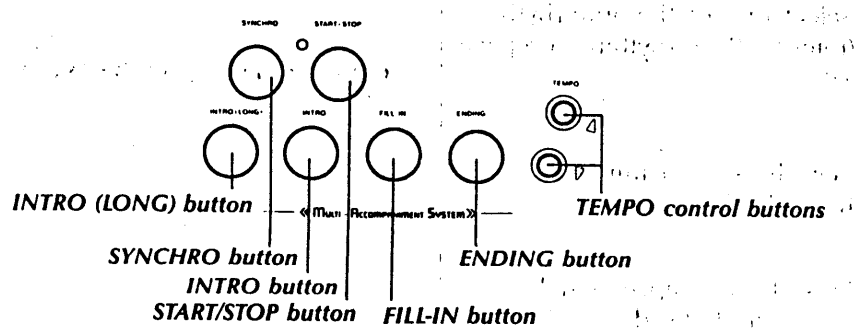
1. Set the POWER/CHORD selector to the FINGERED position.	
2. Select one of the auto-rhythms. (refer to "Auto-rhythms" on page 13)	
3. Start the auto-rhythm by pressing the START/STOP button.	
4. Press the accompaniment keys for the desired chord.	
5. Adjust TEMPO [△/▽], MAIN VOLUME slider, and ACCOMP VOLUME slider.	
6. Press the START/STOP button to stop the auto-accompaniment.	

Note

You can also use introductions, fill-ins and ending patterns in your accompaniment performance. See "Using the MUSICAL CONTROLLER buttons" on page 20.

■ Using the MUSICAL CONTROLLER buttons

The 8 MUSICAL CONTROLLER buttons give you control over the accompaniment patterns. When the POWER/CHORD selector is in the FINGERED or CASIO CHORD ON position, you can control all of the accompaniment patterns. When it is in the POWER ON position, you can control the rhythm pattern only.



<MUSICAL CONTROLLER buttons>

◆ **INTRO button**
This button inserts a light 1-measure introduction before starting the normal accompaniment pattern.

◆ **INTRO (LONG) button**
This button inserts a 4- to 5- measure introduction before starting the normal accompaniment pattern. The chord progression used in the intro leads into the progression used for the accompaniment. Even if you do not specify an accompaniment keyboard chord when you press this button for an intro, the unit automatically bases the intro on the last chord you played (or on Cmaj if you have switched the unit on and have not yet played a chord).

◆ **FILL-IN button**
When you press this button during play of an accompaniment, a 1- to 2-measure fill-in pattern is inserted.

◆ **ENDING button**
When you press this button in place of the START/STOP button to end the accompaniment play, a 2- to 3-measure ending pattern is inserted before accompaniment play is stopped.

◆ **SYNCHRO button**
Press this button, and the unit stands by waiting for you to play a note on the accompaniment keyboard. The selected rhythm pattern begins as soon as you press a key.

■ Using the OBBLIGATO button

The auto-accompaniment patterns produced by this unit consist of 4 different elements; rhythm track, bass line, chord pattern and obbligato. The OBBLIGATO button switchs the sound of the obbligato part ON and OFF.

- *Whenever you set the POWER/CHORD selector to FINGERED or CASIO CHORD ON, the OBBLIGATO button is set to off automatically.*

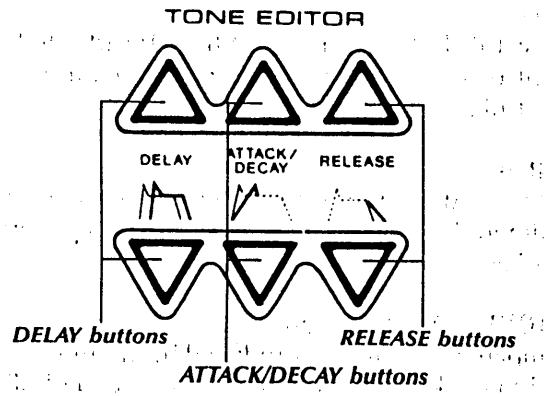
■ Using the AUTO HARMONIZE button

If this button is depressed during play of an accompaniment pattern, the chord selected on the accompaniment keyboard is automatically harmonized with notes played on the melody keyboard.

7 Tone Editor

• Refer to the general guide found on page 4-5 for exact locations of this keyboard controls and connections.

■ Using the TONE EDITOR buttons



<TONE EDITOR buttons>

◆ **DELAY buttons**
You can use the DELAY buttons to delay the output from the right channel, to produce an echo effect. Use the [▼] button to change the delay, and the [▲] button to return to the original setting.

◆ **ATTACK/DECAY buttons**
You can use the ATTACK/DECAY buttons to control the attack and decay points of the sound you play. Use the [▼] button to create a later attack and slower decay, and the [▲] button to create a quicker attack and quicker decay.

◆ **RELEASE buttons**
You can use the RELEASE buttons to control the attenuation of the note you play. Use the [▼] button to create a slower attenuation, and the [▲] button for a quicker attenuation.

8 Performance Memory Function

• Refer to the general guide found on page 4-5 for exact locations of this keyboard controls and connections.

The performance memory function lets you "record" notes as you play them on the keyboard. Up to 1,250 notes can be stored in memory for playback.

■ Recording

① Start an auto-rhythm and adjust the tempo of the recording.
② Press the RECORD button to enter the recording standby mode. The light above the RECORD button flashes.
③ Set the POWER/CHORD selector to FINGERED or CASIO CHORD ON if you want to use auto-accompaniment in your recording. If not, set this switch to POWER ON.
④ Select the auto-rhythm you like.
- *If you don't want an auto-rhythm in your recording (or if you want to start an auto-rhythm during recording), press the Musical Controller START/STOP button here.*
- *If you want to start an auto-rhythm with intro pattern, press the INTRO button here.*
- *If you want to start an auto-rhythm using synchro start, press the SYNCHRO button here.*

⑤ Press the recording START/STOP button to start recording. Recording starts after one measure of beat count.
⑥ Play the keyboard as you like.
⑦ Press the recording START/STOP button again to stop recording.

◆ **Notes on recording**
- You can record changes in the following operations as well as keyboard play during recording.
  Changing preset tones.
  Changing auto-rhythms.
  Starting or stopping a rhythm track.
  Starting a rhythm track using an INTRO pattern.
  Inserting the FILL-IN patterns of rhythms.
  Ending the rhythm track with an ENDING pattern.
- Memory capacity is approximately 1,250 notes. Operations such as changes in rhythms and tones are counted as a half-note.
- Recording automatically ends when you exceed the memory capacity.

■ Playing back memory contents

① Press the recording START/STOP button to play back your performance. The light above the RECORD button lights and playback starts.
② Press the recording START/STOP button again to stop playback.

◆ **Notes on playback**

- You can play the entire keyboard with the playback if the recording was done in the Casio Chord OFF mode. If you recorded in the Casio Chord ON or FINGERED mode, only the melody keyboard can be used.
- All switches and buttons except volume sliders are inoperative during playback.

About memory back-up power....

The Performance Memory is electronic memory, which means that it retains its contents even when you switch power off, as long as power is supplied through the AC adaptor or by batteries. This means that Performance Memory contents will be lost when there are no batteries loaded (or when the batteries go dead) and the AC adaptor is not plugged in (or power through the AC adaptor is interrupted for any reason). Note the following advice to keep your Performance Memory data safe.

- *Make sure that the batteries loaded in the keyboard never go dead.*
- *When replacing batteries, be sure to connect the AC adaptor to supply power first. See the section of this manual titled: "Installing the batteries" for full details.*

9 Troubleshooting

• *For any malfunction, always check battery condition first. (see page 6-8)*

Trouble	Possible Cause	Remedy
No sound, even if keys are pressed.	1. Main volume turned down. 2. Headphones connected. 3. Auto power off has activated.	1. Turn up main volume. 2. Disconnect headphones. 3. Turn the POWER/CHORD selector off and then on again.
No rhythm or accompaniment.	Main and accompaniment volume turned down.	Turn up main and accompaniment volume.
Occasional interference.	Refrigerators, washing machines and similar electric appliances.	Use outlet as far away as possible from appliance thought to be the cause.
No sound when connected to external amplifier.	1. Main volume turned down. 2. Defective connection cord.	1. Turn up main volume. 2. Replace connection cord.

10 Care of Your Keyboard

1. **Avoid heat, humidity or direct sunlight.**
   Do not overexpose the unit to direct sunlight, or place near an air conditioner, or in any extremely hot place.

2. **Take care not to drop the unit and avoid strong impact.**
   Strong impact may cause malfunctions. When carrying or transporting the unit, protect the keyboard and switches with soft cloth or other material.

3. **Keep the unit free of liquids, dust, etc.**
   Do not allow foreign matter to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not let the unit get wet.

4. **Never attempt to modify any parts of the unit.**
   The unit is a precision instrument, made of electronic parts. Any modification of, or tampering with inner parts may cause malfunction.

5. **Do not use lacquer, thinner or similar chemicals for cleaning.**
   Clean the keyboard with a soft cloth dampened in a weak solution of water and a neutral detergent. (Soak the cloth in the solution and squeeze until it is almost dry.)

11 Specifications

Model:	CT-657
Number of keys:	61
Polyphony:	12-note (Max.)
Preset tones:	110
Auto-rhythms:	56
Multi-accompaniment system:	
• Casio Chord;	ON/FINGERED
• Musical controller;	INTRO, INTRO(LONG), FILL-IN, ENDING
• Effects;	OBBLIGATO, AUTO HARMONIZE
Built-in effects:	Stereo delay, Stereo panning
Real-time memory:	Up to 1,250 notes
Terminals:	Sustain jack, AC adaptor jack (DC 9V), headphone jack
Tuning control:	A4=442Hz ± 30 cents
Built-in speakers:	12 cm dia x 2
Auto power off:	Approximately 6 minutes after the last operation
Power source:	3-way AC/DC power source;
• AC:	100, 117, 220, 240V (±10V), 50/60 Hz, with optional AD-5 AC adaptor
• DC:	6 D size (SUM-1/R20P) manganse dry batteries Battery life: Approximately 6 hours
• Car battery:	Requires optional CA-5 car adaptor
Power consumption:	7.7W
Dimensions:	934(W) x 337(D) x 110(H)mm 36 3/4"(W) x 13 1/4"(D) x 4 5/16"(H)
Weight:	5.2 kg (11.5lbs) including batteries
Standard accessories:	6 "D" size batteries, score stand

Designes and specifications are subject to change without notice.

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A.
(not applicable to other areas).

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

..... reorient the receiving antenna
..... relocate the equipment with respect to the receiver
..... move the equipment away from the receiver
..... plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.